|  | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/629,682 | KOOPS ET AL. |
|  | Examiner | Art Unit |
|  | DANIEL C. MURRAY | 2443 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on _07 January 2011_.

2a) ☒ This action is **FINAL**.          2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) _1,2 and 5-24_ is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1,2,5,7-22 and 24_ is/are rejected.

7) ☒ Claim(s) _6 and 23_ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4) ☒ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _10MAR2011_.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.  Patentability shall not be negatived by the manner in which the invention was made.

2.      The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966),

that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a)

are summarized as follows:

1.      Determining the scope and contents of the prior art.
2.      Ascertaining the differences between the prior art and the claims at issue.
3.      Resolving the level of ordinary skill in the pertinent art.
4.      Considering objective evidence present in the application indicating obviousness or nonobviousness.

3.      This application currently names joint inventors.  In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.  Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4.      **Claims 1, 2, 5, 7-10, 13, 18, 19, 22, and 24** are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Moyer et al. (US Patent # US 6,766,364 B2)** in view of **McGuire (US Patent**

**Publication # US 2002/0161888 A1).**

        a) Consider **claim 1,** Moyer et al. clearly show and disclose, a network management system

for creating and implementing a service on a network (abstract), said network management system

comprising: means for acquiring policy rules comprising service rules 220 (service template) which create the service and implementation rules 220 (service template) which implement the service (the service template of Moyer performs both the functions of the service rules and implementation rules)(abstract, column 2 lines 23-46, column 3  lines 50-67, column 4 lines 1-26); wherein said implementation rules 220 (service template) for implementing the service comprise technology rules 222 (device template) and equipment rules 222 (device template)(the device template of Moyer performs the function of both the technology rules and equipment rules)(abstract, column 2 lines 23-46, column 3 lines 57-67, column 4 lines 1-4, column 5 lines 10-40), wherein the inferring means (derives) correlates the service rules 220 (service template) with the technology rules 222 (device template)(column 3 lines 57-67, column 4 lines 1-4 lines 58-64), wherein the technology rules 222 (device template) determine technology to use in the implementation of the service based on attributes of the service and equipment in the network (abstract, column 2 lines 23-47, column 3 lines 50-67, column 4 lines 1-26), and wherein the service is defined by the service rules 220 (service template) independently of the technology and specification of the network equipment (abstract, column 2 lines 23-28, column 3 lines 57-62), where the inferring means adapts the technology rules 222 (device template) using the equipment rules 222 (device template) based on an equipment type (Moyer; abstract, column 2 lines 23-46, column 3 lines 57-67, column 4 lines 1-5, column 5 lines 10-40). However, Moyer et al. does not specifically disclose means for transmitting the determined commands to network elements of the network; and means for inferring said policy rules to determine said commands corresponding to said policy rules.

McGuire shows and discloses deployment and management of devices that control the transmission of data over a network, such as switches, routers, firewalls, load balancers, and the like, and more particularly to a system and method that provides for automated deployment and

management of a variety of different types of such network devices, wherein McGuire discloses means for transmitting the determined commands to network elements of the network (abstract, paragraph [0008], [0009], [0043], [0044]); means for inferring said policy rules to determine said commands corresponding to said policy rules (abstract, paragraph [0008], [0009], [0043], [0044]).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of McGuire and Moyer et al. since both concern the provisioning, configuration, and management or network services and devices and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate determining and applying commands necessary to enable a device, as taught by, McGuire into the system of Moyer et al. for the purpose of automating a provisioning and management system (McGuire; abstract), thereby minimizing or eliminating the need to manually configure devices.

b) Consider **claim 2,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire clearly show and disclose, the network management system claimed in claim 1, wherein said inference means comprises an inference engine provided in the network management system and external to the network comprising the network elements (Moyer; figure 2, figure 5, column 3 lines 25-37, column 6 lines 60-64).

c) Consider **claim 5,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the service rules specify conditions and timing for creating the service (abstract, column 2 lines 42-47, column 3 lines 57-62). However, Moyer et al. as modified by McGuire et al. does not specifically disclose the service rules are provided externally from the network management system.

Nonetheless, it would have been obvious to one of ordinary skill in the art at the time the invention was made that a database contain data used by a system, in this case service rules, could be implemented either internally (e.g. at the same sight or on the same machine) or externally (e.g. remotely either of site or on the same site but in a different machine than that housing the main system) from the system.

d) Consider **claim 7,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the service is designed by a developer independently from specifications of equipment and technology specified in the implementation rules and wherein the implementation rules are dynamically implemented after the determining means determines applicable implementation rules (Moyer; column 2 lines 23-47, column 57-65, column 4 lines 6-26).

e) Consider **claim 8,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the service is rules designed by an operator without requiring specific knowledge of equipment and technology of the network for the service (Moyer; abstract, column 1 lines 55-63).

f) Consider **claim 9,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the implementation rules specify implementation specific details of the service (Moyer; column 3 lines 57-65, column 4 lines 6-26).

g) Consider **claim 10,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim l, wherein the implementation rules specify attributes of the service (Moyer; column 3 lines 57-65, column 4 lines 6-26).

h) Consider **claim 13,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the equipment rules model how the technology rules must be selected for a particular equipment type (Moyer; abstract, column 3 lines 65-67, column 4 lines 1-2).

i) Consider **claim 18,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the equipment is a router (Moyer; figure 1, column 1 lines 15-37).

j) Consider **claim 19,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the network comprises IP routers (Moyer; figure 1, column 1 lines 15-37).

k) Consider **claim 22,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the particular equipment type is selected based on a manufacturer (Moyer; abstract, column 2 lines 39-47, column 3 lines 57-67, column 4 lines 1-4).

l) Consider **claim 24,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly shows and discloses, the network management system of claim 1, further comprising a first database which stores the technology rules (service database 204) and a second database which stores the equipment rules (device database 206)(figure 2, column 3 lines 38-50 lines 57-67, column 4 lines 1-5).

5.     **Claims 11, 16, 17, 20, and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moyer et al. (US Patent # US 6,766,364 B2)** in view of **McGuire (US Patent Publication # US 2002/0161888 A1)** in further view of **Newton, Harry (Newton's Telecom Dictionary).**

a) Consider **claim 11,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the service is a virtual private network. However, Moyer et al. as modified by McGuire et al. does not specifically disclose the service is a virtual private network.

Newton shows and discloses that a virtual private network is a service that can be implemented on a network (Newton, definition of VPN (virtual private network) page 982-983).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Newton into the system of Moyer et al. as modified by McGuire et al. for the purpose of creating a service on a public network with the characteristics of a private network.

b) Consider **claim 16,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the technology is Internet Protocol Security (IPsec) protocol. However, Moyer et al. as modified by McGuire et al. does not specifically disclose the technology is IPsec protocol.

Newton shows and discloses that the technology IPsec protocol can be implemented on a network (Newton, definition of IPsec (Internet Protocol Security) page 501).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Newton into the system of Moyer et al. as modified by McGuire et al. for the purpose of creating a secure service on a public network.

c) Consider **claim 17,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the technology is multi-protocol label switching (MPLS) tunnels. However, Moyer et al. as

modified by McGuire et al. does not specifically disclose the technology is multi-protocol label switching (MPLS) tunnels.

Newton shows and discloses that the technology multi-protocol label switching (MPLS) tunnels can be implemented on a network (Newton, definition of MPLS (multi-protocol label switching) page 604).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Newton into the system of Moyer et al. as modified by McGuire et al. for the purpose of making forwarding decisions on a network.

d) Consider **claim 20,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the network comprises asynchronous transfer mode (ATM) switches. However, Moyer et al. as modified by McGuire et al. does not specifically disclose the network comprises asynchronous transfer mode (ATM) switches.

Newton shows and discloses that the network comprises asynchronous transfer mode (ATM) switches. (Newton, definition of ATM switch page 124).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate the teachings of Newton into the system of Moyer et al. as modified by McGuire et al. for the purpose of implementing a network using ATM switches.

e) Consider **claim 21,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the equipment is an asynchronous transfer mode (ATM) switch. However, Moyer et al. as modified by McGuire et al. does not specifically disclose the equipment is an asynchronous transfer mode (ATM) switch.

Newton shows and discloses that the network comprises asynchronous transfer mode

(ATM) switches. (Newton, definition of ATM switch page 124).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the

invention was made to incorporate the teachings of Newton into the system of Moyer et al. as

modified by McGuire et al. for the purpose of implementing a network using ATM switches.


6.      **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Moyer et al. (US**

**Patent # US 6,766,364 B2)** in view of **McGuire (US Patent Publication # US 2002/0161888 A1)**

in further view of **Ballantine et al. (US Patent # US 6,446,123 B1).**

a) Consider **claim 12,** and **as applied to claim 1 above** Moyer et al. as modified by

McGuire et al. clearly show and disclose, the network management system claimed in claim 1.

However, Moyer et al. as modified by McGuire et al. does not specifically disclose the technology to

be used is determined based on a number of sites involved in a particular network.

Ballantine et al. show and disclose monitoring network performance, traffic, inventory,

breakdown, repair activity, and other conditions, alerts a user to anticipated problems based upon

projection of performance and related data, wherein the technology to be used is determined based

on a number of sites involved in a particular network (abstract, column 5 lines 35-62).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the

invention was made to incorporate determining the technology to use based on network information

(i.e. network inventory), as taught by, Ballantine et al. into the system of Moyer et al. as modified by

McGuire et al. for the purpose of planning based on network information (Ballantine; column 5

lines 35-44).

7.      **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Moyer et al. (US Patent # US 6,766,364 B2)** in view of **McGuire (US Patent Publication # US 2002/0161888 A1)** in further view of **Abaye et al. (US Patent # US 7,024,475 B1).**

a) Consider **claim 14,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1. However, Moyer et al. as modified by McGuire et al. does not specifically disclose the particular equipment type is selected based on their capacity.

Abaye et al. show and disclose performance modeling of a communications system, such as one that provides for communications of streaming data, wherein the particular equipment type is selected based on their capacity (column 1 lines 64-67, column 2 lines 1-10).

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate selection of equipment based on their capacity, as taught by, Abaye et al. into the system of Moyer et al. as modified by McGuire et al. for the purpose of proper network planning when deploying a communications systems (Abaye; column 1 lines 64-67, column 2 lines 1-10).

8.      **Claim 15** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Moyer et al. (US Patent # US 6,766,364 B2)** in view of **McGuire (US Patent Publication # US 2002/0161888 A1)** in further view of **Westfall et al. (US Patent # US 6,449,650 B1).**

a) Consider **claim 15,** and **as applied to claim 1 above,** Moyer et al. as modified by McGuire et al. clearly show and disclose, the network management system claimed in claim 1, wherein the service provides video conferences. However, Moyer et al. as modified by McGuire et al. does not specifically disclose wherein the service provides video conferences.

Westfall et al. show and disclose network policy management system and methods define service templates. The service templates contain information on the topologies of services such as video calls, web services, order processing applications, or the like, wherein the service provides video conferences (abstract, column 7 lines 45-58).

One of ordinary skill in the art at the time the invention was made would have been motivated to combine the teachings of Westfall et al. and Moyer et al. as modified by McGuire et al. since both concern configuring networks to provide services and as such, both are with in the same environment.

Therefore, it would have been obvious to one of ordinary skill in the art that the time the invention was made to incorporate implementing video conferencing services, as taught by, Westfall et al. into the system of Moyer et al. as modified by McGuire et al. for the purpose of providing video conferencing services (Westfall; column 7 lines 45-58), thereby allowing users to establish a vide conference.

## *Allowable Subject Matter*

9.      **Claims 6 and 23** are objected to as being dependent upon a rejected base claim, but would be allowable if both are rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Response to Arguments*

10.     Applicant's arguments filed 07JAN2011 have been fully considered but they are not

persuasive.

Applicant argues that "Moyer does not teach or suggest that the inferring means adapts the

technology rules using the equipment rules based on an equipment type. … This is different because

translating a configuration setting to another configuration setting does not teach adapting a set of

rules using another set of rules as recited in claim 1."

The Examiner respectfully disagrees; Moyer clearly discloses the inferring means adapts the

technology rules 222 (device template) using the equipment rules 222 (device template) based on an

equipment type (Moyer; abstract, column 2 lines 23-46, column 3 lines 57-67, column 4 lines 1-5,

column 5 lines 10-40).

Moyer clearly discloses specifically, the service configuration validator accesses the customer

premise network database 202 to *determine the specific devices* within the customer premise network 100

and accesses the device database 206 *to obtain the device templates (technology/equipment rules) for these*

*devices*. Using this information and the generated vendor-neutral device-configuration settings, the

service configuration validator *verifies that the network devices can be configured for the requested service*

(emphasis added)(Moyer; column 5 lines 32-40).

Moyer clearly discloses the system invokes an adaptor module that *translates the vendor-neutral*

*device-configuration settings determined for the requested service to vendor-specific device-configuration settings and*

*communicates these settings to the particular devices* within the customer premise network to enable the

service. Similar to the above, the network configuration manager can also disable a service within the

customer premise network (emphasis added)(Moyer; particularly column 2 lines 39-46).

Moyer clearly discloses an adaptor module translates the vendor-neutral device-configuration settings to vendor specific configuration settings corresponding to the devices in the network and configures the devices (Moyer; abstract).

Moyer clearly discloses the device database 206 maintains device templates 222 for vendor specific devices. *A device template provides the capabilities of a particular device and how to configure that particular device* (Moyer; column 3 lines 65-67, column 4 lines 1-2).

The device template of Moyer contains both technology rules and equipment rules in the form of a device template and adapts the device template based on the device. The device template describes capabilities of a particular device and how to configure that particular device (i.e. what the device is and how to use it) just as the technology/equipment rules do. The portion of the device template corresponding to the technology rules (how to use the device) is adapted based on the portion of the device template corresponding to the equipment rules (what the device is) according to what device it being used. Clearly, translating a configuration setting to another configuration setting does teach adapting a set of rules using another set of rules as translating one configuration setting to another configuration setting is adapting one configuration (set of rules) to another configuration (set of rules) based on a particular device.

Therefore, Moyer clearly discloses the inferring means adapts the technology rules using the equipment rules based on an equipment type.


Applicant argues that "On page 5, last line of the Office Action, the Examiner appears to assert that Moyer discloses adapting device templates using device templates based on an equipment type. It is unclear how the device templates are adapted using device templates in Moyer."

The device template of Moyer serves the function of both the technology rules and the equipment rules of Applicant. The device template describes capabilities of a particular device and how to configure that particular device (i.e. what the device is and how to use it) just as the technology/equipment rules do. The Examiner was attempting to convey that aspects of the device template are changed based on the type of device. The device template of Moyer contains both technology rules (how to use the device) and equipment rules (what the device is) in the form of a device template and adapts the device template based on the device. The portion of the device template corresponding to the technology rules (how to use the device) is adapted based on the portion of the device template corresponding to the equipment rules (what the device is) based on what device it being used.

Applicant argues that "Moyer does not teach or suggest the features of "the equipment rules are used to model how the technology rules must be selected for a particular equipment type."

The Examiner respectfully disagrees; Moyer clearly discloses the equipment rules model how the technology rules must be selected for a particular equipment type (Moyer; abstract, column 3 lines 65-67, column 4 lines 1-2).

Moyer clearly teaches that the device template provides the capabilities of a particular device (equipment rules) and how to configure the particular device (technology/equipment rules) as discussed in the previous Office Action. Furthermore, a template by definition is anything that determines or serves as a pattern; a model (Dictionary.com; Random House, template, definition 2) and it is therefore, quite clear that a service/device template which serves as a pattern (such as by using rules, e.g. service requirements, a configuration, etc.) and a model be used for how the to

configure the device (technology/equipment rules) must be selected for a particular device

(equipment type) as taught by Moyer.

Furthermore, Moyer clearly discloses specifically, the service configuration validator accesses

the customer premise network database 202 to *determine the specific devices* within the customer premise

network 100 and accesses the device database 206 *to obtain the device templates (technology/equipment rules)*

*for these devices.* Using this information and the generated vendor-neutral device-configuration settings,

the service configuration validator *verifies that the network devices can be configured for the requested service*

(emphasis added)(Moyer; column 5 lines 32-40).

Moyer clearly discloses the system invokes an adaptor module that *translates the vendor-neutral*

*device-configuration settings determined for the requested service to vendor-specific device-configuration settings and*

*communicates these settings to the particular devices* within the customer premise network to enable the

service. Similar to the above, the network configuration manager can also disable a service within the

customer premise network (emphasis added)(Moyer; particularly column 2 lines 39-46).

Moyer clearly discloses an adaptor module translates the vendor-neutral device-configuration

settings to vendor specific configuration settings corresponding to the devices in the network and

configures the devices (Moyer; abstract).

Moyer clearly discloses the device database 206 maintains device templates 222 for vendor

specific devices. *A device template provides the capabilities of a particular device and how to configure that*

*particular device* (Moyer; column 3 lines 65-67, column 4 lines 1-2).

Moyer clearly discloses the use of a device template (i.e. model) which describes the

capabilities of a particular device)(equipment rules) and is used by the system to model how to

configure the device (technology rules) and must be selected for a particular device (equipment

type).

Therefore, Moyer clearly discloses the equipment rules model how the technology rules must

be selected for a particular equipment type.


## *Conclusion*

**THIS ACTION IS MADE FINAL.**  Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS

from the mailing date of this action.  In the event a first reply is filed within TWO MONTHS of the

mailing date of this final action and the advisory action is not mailed until after the end of the

THREE-MONTH shortened statutory period, then the shortened statutory period will expire on

the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action.  In no event, however, will the statutory

period for reply expire later than SIX MONTHS from the mailing date of this final action.

The Examiner has cited particular columns and line numbers in the references as applied to

the claims above for the convenience of the Applicant. Although the specified citations are

representative of the teachings in the art and are applied to the specific limitations within the

individual claim, other passages and figures may apply as well. It is respectfully requested from the

Applicant, in preparing the responses, to fully consider each of the cited references in entirety as

potentially teaching all or part of the claimed invention, as well as the context of the passage

disclosed by the Examiner.

With respect to any amendments to the claimed invention, it is respectfully requested that

Applicant indicate the portion(s) of the specification which dictate(s) the structure relied on for

proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

If Applicant intends to make numerous amendments the Examiner respectfully requests that Applicant submit a clean copy of the claims in addition to the marked up copy of the claims in order to expedite the examination process.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (See PTO-Form 892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL C. MURRAY whose telephone number is 571-270-1773. The examiner can normally be reached on Monday - Friday 0800-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on (571)-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. C. M./
Examiner, Art Unit 2443

/Tonia LM Dollinger/

Supervisory Patent Examiner, Art Unit 2443